

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

May 1, 2019

Keeva Shultz Agent for Rotam Agrochemical Company, Ltd. Wagner Regulatory Associates, Inc. P.O. Box 640 7217 Lancaster Pike, Suite A Hockessin, Delaware 19707

Subject: Registration Review Label Mitigation for Nicosulfuron and Rimsulfuron

Product Name: NICOSULFURON 50% + RIMSULFURON 25% WG

EPA Registration Number: 83100-44

Application Date: 05/31/2018 Decision Number: 541518

Dear Ms. Shultz:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Fomesafen Final and/or Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact Erik Kraft by phone at 703-308-9358, or via email at <a href="mailto:Kraft.Erik@epa.gov">Kraft.Erik@epa.gov</a>.

Sincerely,

Erik Kraft, Product Manager 24 Fungicide and Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

Enclosure

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**HERBICIDE** 

#### NICOSULFURON AND RIMSULFURON GROUP

# Nicosulfuron 50% + Rimsulfuron 25% WG

# **Water Dispersible Granule for use in Field Corn**

ACTIVE INGREDIENT:	<u>BY \</u>	WT.
Nicosulfuron		
2-[[(4,6-dimethoxypyrimidin-2-yl)aminocarbonyl]aminosulfonyl]-N,N-dimethyl-3 pyridinecarboxamide	50.	.0%
Rimsulfuron		
N-((4,6-dimethoxypyrimidin-2-yl)aminocarbonyl)-3-(ethylsulfonyl)-2-pyridinesulfonamide	25.	.0%
OTHER INGREDIENTS:	25	.0%
	TOTAL: 100.	0%

# CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID				
IF ON SKIN:	Take off contaminated clothing.			
	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul>			
	Call a poison control center or doctor for treatment advice.			
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice.			
<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>				
<ul> <li>Do not induce vomiting by mouth unless told to by a poison control center or doctor.</li> </ul>				
<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>				
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.			
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.			
	Call a poison control center or doctor for treatment advice.			

#### **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-Hour Medical Emergency Assistance (Human or Animal) call: **1-800-222-1222**. For Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) call CHEMTREC: **1-800-424-9300**.

[See [complete] [additional] [First Aid] [Precautionary Statements] [and] Directions for Use inside booklet.]

EPA Reg. No. 83100-44

**EPA Est. No. XXXXX-XX** 

# **NET CONTENTS:**

# Manufactured By [For]:

Rotam Agrochemical Company Ltd. 26/F E-Trade Plaza 24 Lee Chung Street Chaiwan, Hong Kong

# ACCEPTED

05/01/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 2010 2014

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# PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

**CAUTION!** Harmful if absorbed through skin. Harmful if swallowed. Avoid contact with skin, eyes, or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

# **Applicators and other handlers must wear:**

- long-sleeved shirt and long pants
- shoes plus socks
- Chemical-resistant gloves (barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, poly-ethylene, polyvinyl chloride (PVC) ≥ 14 mils, and viton ≥ 14 mils)

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove and wash contaminated clothing before reuse.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply where/when conditions could favor runoff. Do not apply if a severe storm is expected within 24 hours.

#### **Groundwater Advisory**

Nicosulfuron is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of nicosulfuron from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### **Non-Target Organism Advisory**

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

# **Windblown Soil Particles Advisory**

**Nicosulfuron 50% + Rimsulfuron 25% WG** has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affects the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying **Nicosulfuron 50% + Rimsulfuron 25% WG** if prevailing local conditions may be expected to result in off-site movement.

# PHYSICAL/CHEMICAL HAZARDS

Do not store near any oxidizing or reducing agents.

# **Aerial Applications:**

# **MANDATORY SPRAY DRIFT**

- Do not release spray at a height greater than 10 ft. above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or

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coarser droplet size (ASABE S572.1).

- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **Ground Boom Applications:**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **Boom-less Ground Applications:**

- Applicators are required to use a Medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **SPRAY DRIFT ADVISORIES**

# **Boom-less Ground Applications:**

• Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### **Handheld Technology Applications:**

• Take precautions to minimize spray drift.

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### **Controlling Droplet Size - General Techniques**

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **Nozzle Type** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

# **Controlling Droplet Size – Ground Boom**

- **Volume** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

# **Controlling Droplet Size – Aircraft**

• **Adjust Nozzles** - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

# **BOOM HEIGHT – Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

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#### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **INTEGRATED PEST MANAGEMENT**

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### **WEED RESISTANCE MANAGEMENT**

Nicosulfuron 50% + Rimsulfuron 25% WG contains nicosulfuron and rimsulfuron and is classified as a Group 2 herbicide, Acetolactate Synthase (ALS) or Acetohydroxy Acid Synthase (AHAS) inhibitor.

Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to Nicosulfuron 50% + Rimsulfuron 25% WG and other Group 2 herbicides. Weed species with acquired resistance to Group 2 herbicides may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Nicosulfuron 50% + Rimsulfuron 25% WG or other Group 2 herbicides.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed. If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of **Nicosulfuron 50% + Rimsulfuron 25% WG** or other target site of action Group 2 herbicides that have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.

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Users should scout before and after application. Users should report lack of performance to registrant or their representative. Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

# **DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

# Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is:

- coveralls
- shoes plus socks
- Chemical-resistant gloves (barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, poly-ethylene, polyvinyl chloride (PVC) ≥ 14 mils, and viton ≥ 14 mils)

Apply **Nicosulfuron 50% + Rimsulfuron 25% WG** only in accordance with directions on this label. To the extent consistent with applicable law, Rotam will not be responsible for losses or damage resulting from use of this product in any manner not specified by Rotam.

#### PRODUCT INFORMATION

**Nicosulfuron 50% + Rimsulfuron 25% WG** is a water-dispersible granule applied at 3/4 ounce per acre (0.0234 lb. a.i. nicosulfuron/acre and 0.0117 lb. a.i. rimsulfuron/acre) for selective post-emergence grass and broadleaf weed control in field corn.

### **Restrictions:**

# Injury to or loss of desirable vegetation may result from fail to observe the following:

- The maximum application rate of **Nicosulfuron 50% + Rimsulfuron 25% WG** is 3/4 ounce per acre (0.0234 lb. a.i. nicosulfuron/acre and 0.0117 lb. a.i. rimsulfuron/acre).
- Do not apply more than 3/4 ounce per acre (0.0234 lb. a.i. nicosulfuron/acre and 0.0117 lb. a.i. rimsulfuron/acre) of **Nicosulfuron 50% + Rimsulfuron 25% WG** a year.
- Do not apply to field corn grown for seed, to popcorn or to sweet corn.
- Do not make more than one application of Nicosulfuron 50% + Rimsulfuron 25% WG per year.
- Do not apply aerially in California or New York State.
- Do not apply **Nicosulfuron 50% + Rimsulfuron 25% WG** or drain or flush application equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts.
- Do not allow product spray to drift to desirable plants.
- Do not contaminate any body of water.
- Do not graze or feed forage, hay, or straw from treated areas to livestock within 30 days of **Nicosulfuron 50% + Rimsulfuron 25% WG** application.

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#### WHEN TO APPLY

#### **TIMING TO CROP STAGE**

Apply **Nicosulfuron 50% + Rimsulfuron 25% WG** to corn that is up to 20" tall and exhibiting up to and including 6-leaf collars. **DO NOT** apply to corn taller than 20" or exhibiting more than 6-leaf collars, whichever is more restrictive. Some State and corn hybrid restrictions apply (see below). Not all **Nicosulfuron 50% + Rimsulfuron 25% WG** tank mixtures may be applied to corn that is beyond 12" tall. Consult **TANK MIX APPLICATIONS** for more information.

**Nicosulfuron 50% + Rimsulfuron 25% WG** has a wide application window; however, best results are obtained when applications are made early post-emergence when corn and weeds are small. Apply to corn <12" tall for best overall performance.

Apply Nicosulfuron 50% + Rimsulfuron 25% WG to field corn hybrids with a relative maturity (RM) rating of 77 days or more, including "food grade" (yellow dent, hard endosperm), waxy, and oil corn. Not all field corn hybrids of less than 77 days RM, not all white corn hybrids nor Hi-Lysine hybrids have been tested for crop safety, nor does Rotam have access to all seed company data. Consequently, injury arising from the use of Nicosulfuron 50% + Rimsulfuron 25% WG on these types of corn is the responsibility of the user. Consult with your seed supplier before applying Nicosulfuron 50% + Rimsulfuron 25% WG to any of these corn types. Limit applications of Nicosulfuron 50% + Rimsulfuron 25% WG to corn hybrids of 77-88 CRM that is 12" tall, less than or equal to 5-leaf collars, whichever is most restrictive. The application of tank mixtures with dicamba-containing herbicides (including dicamba or diflufenzopyrsodium + dicamba) to 77-88 CRM corn must not contain more than the use rate referred to on the product label of dicamba. Seed company publications indicate "Warning", "Crop Response Warning", or "Sensitive" notations for the use of some ALS herbicides on corn hybrids of 77 CRM or higher. As noted in the seed company publications, use Rotam sulfonylurea herbicides including **Nicosulfuron 50% + Rimsulfuron 25% WG** with caution on these hybrids. Consult with your local Rotam representative for any additional supplemental labeling information relative to potential corn hybrid sensitivity to Nicosulfuron 50% + Nicosulfuron 25% WG. Limit Nicosulfuron 50% + Rimsulfuron 25% WG applications to corn that is up to 12" tall, up to and including 5-leaf collars, whichever is most restrictive, in the states of KS, OK, and TX.

#### **TIMING TO WEEDS**

Apply **Nicosulfuron 50% + Rimsulfuron 25% WG** when grasses are young and actively growing, but before they exceed the sizes listed on this label.

- Applications made to weeds at growth stages greater than those listed below can result in incomplete control. Grass competition due to incomplete control may reduce yields.
- Adequate soil moisture is required for optimum activity. Rainfall within 5 to 7 days after application will enhance
   Nicosulfuron 50% + Rimsulfuron 25% WG residual activity.

If an activating rainfall or sprinkler irrigation (>1/2") is not received within 5 to 7 days after application, follow with a cultivation or with a sequential application, if needed. See **CULTIVATION** or **SEQUENTIAL PRIMERO**® **or ACCENT**® **APPLICATIONS**.

#### **RATE**

Apply **Nicosulfuron 50% + Rimsulfuron 25% WG** at a rate of 3/4 ounce per acre (0.0234 lb. a.i. nicosulfuron/acre and 0.0117 lb. a.i. rimsulfuron/acre) for season-long control of grass and broadleaf weeds listed below.

#### **WEEDS CONTROLLED**

Grasses	Height (Inches) at Application	Broadleaf Weeds	Height (Inches) at Application	
Barnyardgrass	4"	Control:		
Canarygrass	6"	Amaranth, powell	4"	
Cereals, volunteer	2"	Burcucumber	4"	
Crabgrass, large*	1"	Dandelion	8"	
Cupgrass, woolly*	3"	Jimsonweed	4"	
Foxtails		Morningglory, annual	4"	
bristly	4"	Mustard, wild	4"	
giant	4"	Pigweed, redroot & smooth	4"	
green	4"	Sunflower, common	4"	
yellow*	4"	Suppression:		
Goosegrass	2"	Cocklebur, common	4"	
Johnsongrass, seedling or rhizome	8 - 12"	Ladysthumb	4"	
Millet, wild proso	4"	Lambsquarters, common	4"	
Muhly, wirestem	4″*	Hemp dogbane	4"	

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Panicum, fall & Texas	4"			
Quackgrass	8″*			
Ryegrass, Italian	4"			
Sandbur, field*	2"			
Shattercane	6"			
Signalgrass, broadleaf	2"			
Oats, wild	2"			
Witchgrass	4"			
*Cultivation or retreatment with a sequential application may be required.  See "For Additional Control of Crabgrass and Later Emerging"				

Nutsedge, yellow	4"
Smartweed, PA	4"
Thistle, Canada	4"
Velvetleaf	4"
Waterhemp, tall & common	2"

See "For Additional Control of Crabgrass and Later Emerging Grasses."

Weed sensitivity to **Nicosulfuron 50% + Rimsulfuron 25% WG** decreases as they mature. Grassy weeds growing under stress due to drought or other environmental factors may become mature (more than 3 tillers) before they reach the size listed, in which case their susceptibility to **Nicosulfuron 50% + Rimsulfuron 25% WG** may be reduced.

#### **SPRAY ADJUVANTS**

Applications of **Nicosulfuron 50% + Rimsulfuron 25% WG** must include either a crop oil concentrate or a nonionic surfactant. In addition, an ammonium nitrogen fertilizer must be used unless specifically prohibited by tank mix partner labeling. Crop oil concentrate plus ammonium nitrogen fertilizer is the preferred adjuvant system for **Nicosulfuron 50% + Rimsulfuron 25% WG**. If another herbicide is tank mixed with **Nicosulfuron 50% + Rimsulfuron 25% WG**, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 1001).

# Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

- Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- Use MSO adjuvants at 0.5% v/v (0.5 gallon per 100 gallons spray solution) if specifically noted on adjuvant product labeling.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

#### **Nonionic Surfactant (NIS)**

- Apply at 0.25% v/v (1 qt. per 100 gals. spray solution) or 0.5% under arid conditions.
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

# **Ammonium Nitrogen Fertilizer**

- Use 2 qts. per acre of a high-quality urea ammonium nitrate (UAN) including 28%N or 32%N, or 2 lbs. per acre of a spray-grade ammonium sulfate (AMS). Use 4 quarts/acre UAN or 4 pounds per acre AMS under arid conditions.
- **DO NOT** use liquid nitrogen fertilizer as the total carrier solution.

# **Special Adjuvant Types**

• Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO, and/or ammonium nitrogen fertilizer. Other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by Rotam Product Management.

#### **MIXING INSTRUCTIONS**

- 1. Fill the tank 1/4 to 1/3 full of water.
- 2. While agitating, add the required amount of **Nicosulfuron 50% + Rimsulfuron 25% WG**.
- 3. Continue agitation until the **Nicosulfuron 50% + Rimsulfuron 25% WG** is fully dispersed, at least 5 minutes.
- 4. Once the **Nicosulfuron 50% + Rimsulfuron 25% WG** is fully dispersed, maintain agitation and continue filling tank with water. Thoroughly mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with water before adding any other material.
- 5. As the tank is filling, add the required spray adjuvants (crop oil concentrate, nonionic surfactant, or ammonium nitrogen fertilizer).
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply **Nicosulfuron 50% + Rimsulfuron 25% WG** spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If **Nicosulfuron 50% + Rimsulfuron 25% WG** and a tank mix partner are to be applied in multiple loads, pre-slurry the **Nicosulfuron 50% + Rimsulfuron 25% WG** in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the **Nicosulfuron 50% + Rimsulfuron 25% WG**.

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# WHEN TO APPLY - SEOUENTIAL APPLICATIONS FOLLOWING REDUCED RATES OF PRE-EMERGENCE HERBICIDES

Nicosulfuron 50% + Rimsulfuron 25% WG may be used as a sequential application in a planned post-emergence weed control program in corn following a reduced rate of a pre-emergence herbicide.

Apply a reduced rate of a pre-emergence grass herbicide prior to corn emergence and then follow with a post-emergence application of Nicosulfuron 50% + Rimsulfuron 25% WG. Apply products including s-metolachor, isoxaflutole, metribuzin, flufenacet, acetochlor, dimethenamid, and atrazine at as low as 1/4 to 1/2 of the full labeled use rate and follow with a sequential post-emergence application of Nicosulfuron 50% + Rimsulfuron 25% WG. Refer to WHEN TO APPLY - POST-EMERGENCE and ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY sections for complete application information and precautions. Refer to the pre-emergence grass herbicide label for use restrictions, application information, rotational crop quidelines, and cautionary statements prior to applying Nicosulfuron 50% + Rimsulfuron 25% WG.

DO NOT apply Nicosulfuron 50% + Rimsulfuron 25% WG to corn that exhibits herbicide injury from previous applications made to the current or preceding crop.

# **TANK MIX APPLICATIONS**

Application of Nicosulfuron 50% + Rimsulfuron 25% WG tank mixtures containing atrazine and/or dicamba (in some states) are limited to corn that is up to 12" tall, up to and including 5-leaf collars, whichever is most restrictive. See TANK MIXTURES WITH DIFLUFENZOPYR-SODIUM + DICAMBA OR DICAMBA for additional information. Refer to the table below for weeds controlled using preferred tank mixtures.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### For Additional Control of Broadleaf Weeds

Nicosulfuron 50% + Rimsulfuron 25% WG may be tank mixed with the herbicides below for additional control of broadleaf weeds. See the tank mix partner label for weeds controlled, precautions, use restrictions and crop rotation information.

Crop oil concentrate must be used in the tank mixtures specified below. The use of nonionic surfactant is permitted in place of crop oil concentrate for tank mixtures containing dicamba, however, overall weed control may be reduced. See **SPRAY ADJUVANTS** for adjuvant rate specifications.

Product
atrazine
dicamba
dicamba + atrazine
diflufenzopyr-sodium + dicamba
mesotrione
clopyralid potassium + flumetsulam

The table below indicates weeds controlled using preferred tank mixtures.

Broadleaf Weeds	Nicosulfuron 50% + Rimsulfuron 25% WG Alone	+dicamba	+ diflufenzopyr- sodium + dicamba	+ atrazine + dicamba	+ clopyralid potassium + flumetsulam	+ atrazine	+mesotrione †
Cocklebur, common	4″*	4"	4"	4"	4"	4"	4"
Dandelion	8"	10"	10"	10"	10"	10"	10"
Kochia		4"*	4″*	4″*			4"**
Ladysthumb	4″*	4"*	4″*	4″*	4"	4"*	4"
Lambsquarters, common	2″*	4"	4"	4"	2″*	4"	4"
Mallow, Venice					4"		4"**
Nightshade, eastern black		2"	2"	4"	2″*	2"	4"
Ragweed, common		4"	4"	4"	4"	4"	4"**
Ragweed, giant		4"*	4″*	4″*	4"	4"*	4"
Smartweed, Pennsylvania	4″*	4"	4"	4"	4"	4"	4"
Velvetleaf	4″*	4"	4"	4"	4"	2"	4"
Waterhemp, common, tall	2″*	2"	2"	4"	2″*	2"	4"

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Unless noted elsewhere in this label, all tank mixtures in the table above require the addition of crop oil concentrate and ammonium nitrogen fertilizer as noted in **SPRAY ADJUVANTS**.

**DO NOT** use MSO adjuvants when tank mixing **Nicosulfuron 50% + Rimsulfuron 25% WG** with > the use rate referenced in the product label of mesotrione.

# ADDITIONAL DIRECTIONS AND/OR DIRECTIONS FOR SPECIFIC WEED PROBLEMS

#### **Tank Mixtures with Atrazine**

**Nicosulfuron 50% + Rimsulfuron 25% WG** may be tank mixed with atrazine\* for additional control of many broadleaf weeds, including:

Weed height at application	
Sicklepod	1 - 2 inches
Prickly sida	1 - 2 inches
Wild Radish	6 - 12 inches
Cutleaf evening primrose	4 - 6 inches
Florida pusley	1 - 2 inches
* For best results add atrazine (refer to	label for rates use information). Products containing atrazine are restricted use products.

**Nicosulfuron 50% + Rimsulfuron 25% WG** + atrazine tank mix will result in reduced control of grasses (antagonism) if applied to grasses under low moisture stress or to grasses exceeding the maximum labeled height. Before applying **Nicosulfuron 50% + Rimsulfuron 25% WG** + atrazine tank mix, refer to the atrazine product label for information regarding the maximum amount of atrazine that may be applied in a year.

#### **Tank Mixtures with Mesotrione**

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with mesotrione herbicide for weed control as indicated in the table below:

Maximum Weed Height (in inches)						
Species	Mesotrione alone <sup>1</sup> Mes		Meso	otrione + Atrazine*1		
Cocklebur	4"	4"	4"	10"	10"	10"
Dandelion	10"	10"	10"	10"	10"	10"
Jimsonweed	4"	4"	4"	4"	10"	10"
Kochia			4"		4"	4"
Lambsquarters, common	4"	4"	4"	10"	10"	10"
Morningglory, annual	4"	4"	4"	4"	4"	4"
Mustard, wild			4"			10"
Nightshade, black	4"	4"	4"	10"	10"	10"
Nightshade, eastern black	4"	4"	4"	10"	10"	10"
Pigweed, palmer			4"	4"	4"	10"
Pigweed, redroot	4"	4"	4"	10"	10"	10"
Ragweed, common			-	4"	10"	10"
Ragweed, giant		3"	4"	4"	10"	10"
Smartweed, ladysthumb		4"	4"	4"	10"	10"
Smartweed, Pennsylvania	4"	4"	4"	4"	10"	10"
Sunflower, common	4"	4"	4"	4"	4"	10"
Velvetleaf	4"	4"	4"	10"	10"	10"
Waterhemp, tall & common		4"	4"	4"	10"	10"
*Plus 0.25 to 0.75 pound a.i. atrazin	e per acre, may p	rovide better contro	l when weeds are	at maximum height		·

<sup>\*</sup>Plus 0.25 to 0.75 pound a.i. atrazine per acre, may provide better control when weeds are at maximum height.

¹Refer to product label for specific use rate information.

For improved grass and broadleaf weed control, apply **Nicosulfuron 50% + Rimsulfuron 25% WG** tank mixtures with mesotrione (with or without atrazine) with 0.5 % v/v MSO spray adjuvant.

<sup>\*</sup>Suppression

<sup>\*\*</sup>Requires the addition of 0.25 pounds a.i. atrazine.

<sup>†</sup>See mesotrione tank mix chart on next page.

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**DO NOT** use MSO adjuvants when tank mixing **Nicosulfuron 50% + Rimsulfuron 25% WG** with >mesotrione. Use a petroleum-based crop oil concentration + an ammonium nitrogen fertilizer.

# Tank Mixtures with Diflufenzopyr-sodium + Dicamba or Dicamba

In situations where the use of crop oil concentrate with growth regulator herbicides is not desirable (e.g., extremely cold weather), tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with diflufenzopyr-sodium + dicamba or dicamba + a nonionic surfactant at 0.25% v/v (1 qt./100 gallons spray solution) in place of crop oil concentrate, but overall weed control may be reduced.

Limit tank mix applications of **Nicosulfuron 50% + Rimsulfuron 25% WG** with herbicides containing dicamba (refer to product label for specific use rate information) to corn that is up to 12" tall, up to and including 5-leaf collars, whichever is most restrictive, except for the states east of the line formed by the western borders of MI, IN, KY, TN, and MS. In these states the upper corn size limits are 20" tall, up to and including 6-leaf collars.

# **Tank Mixtures with Primisulfuron-methyl + Prosulfuron**

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with primisulfuron-methyl + prosulfuron herbicides for additional control of velvetleaf, common and giant ragweed, lambsquarters, ivyleaf morningglory, PA smartweed, and sunflower. Make applications to emerged field corn before the corn is 12" tall or is exhibiting 6-leaf collars, whichever is the more restrictive.

### For Additional Control of Crabgrass and Later Emerging Grasses

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with full or reduced rates of pre-emergence grass herbicides labeled for early post-emergence application to field corn (including s-metolachlor/metolachlor, pendimethalin, Acetochlor, and dimethenamide-P) for increased residual activity of later-emerging flushes of grasses including smooth and large crabgrass. Make application before the crabgrass emerges and before other grass weeds on the **Nicosulfuron 50% + Rimsulfuron 25% WG** label exceed their labeled sizes.

#### For Additional Control of Broadleaf Weeds

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with atrazine + s-metolachlor + mesotrione for improved burndown or residual control of several broadleaf weeds including common waterhemp, common ragweed, common lambsquarters, and velvetleaf. When applying mixtures of **Nicosulfuron 50% + Rimsulfuron 25% WG** plus atrazine + s-metolachlor + mesotrione use a nonionic surfactant. Refer to atrazine + s-metolachlor + mesotrione labels for additional information regarding application timing, tank mixtures, adjuvants, and rotational crops.

#### **For Additional Control of Broadleaf Weeds**

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with atrazine + topramezone plus atrazine at the referenced use rate on the product label for improved burndown or residual control of several broadleaf weeds including common waterhemp, common ragweed, common lambsquarters, and velvetleaf. When applying mixtures of **Nicosulfuron 50% + Rimsulfuron 25% WG** plus atrazine + topramezone at the referenced use rate on the product label use a methylated seed oil. Refer to atrazine + topramezone label for additional information regarding application timing, tank mixtures, adjuvants, and rotational crops.

Use a nonionic surfactant in place of crop oil concentrate for tank mixtures with Pre-emergence grass herbicides including s-metolachlor/metolachlor, pendimethalin, and atrazine + s-metolachlor + mesotrione where applications are made early post-emergence to small weeds. See **SPRAY ADJUVANTS** for adjuvant rate specifications.

When tank mixing **Nicosulfuron 50% + Rimsulfuron 25% WG** with pre-emergence herbicides that restrict the use of ammonium nitrogen fertilizer adjuvants and applications are made early post-emergence to small weeds, follow restrictions on the tank mix partner label and/or omit the fertilizer adjuvants.

Tank mix rates of atrazine + s-metolachlor + mesotrione herbicide must be limited to the referred use rate on the product label.

When tank mixing **Nicosulfuron 50% + Rimsulfuron 25% WG** with EC formulated pre-emergence grass herbicides including s-metolachlor/metolachlore or pendimethalin, **DO NOT** add mesotrione herbicide to the tank mixture. When other formulations of pre-emergence grass herbicides are tank mixed with **Nicosulfuron 50% + Rimsulfuron 25% WG** + mesotrione, limit pre-emergence herbicide rates to no more than 2/3 x full pre-emergence rates, always add nonionic surfactant in place of crop oil concentrate, and limit broadleaf weed sizes to less than or equal to 4" tall.

Tank mixes of **Nicosulfuron 50% + Rimsulfuron 25% WG** and pre-emergence grass herbicides must be broadcast applied post-emergence to field corn before the crop exceeds the heights listed on the pre-emergence grass herbicide

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label. Refer to **WHEN TO APPLY - POST-EMERGENCE** and the pre-emergence grass herbicide label for complete post-emergence application information, rates, and restrictions.

# For Additional Control of Palmer Pigweed (Amaranth) in the states of CO, KS and OK

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with dicamba (refer to product label for use rate information) and crop oil concentrate for additional control of palmer pigweed. Make applications to corn that is 4 - 8" tall and is exhibiting fewer than 4-leaf collars.

#### For Additional Control of Yellow Nutsedge

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with halosulfuron-methyl herbicide or dicamba + halosulfuron-methyl herbicide for control of yellow nutsedge. Make applications before the corn exhibits 6-leaf collars or is 12" tall, whichever is the more restrictive. Consult the halosulfuron-methyl or dicamba + halosulfuron-methyl labels for additional weeds controlled. Always add COC and ammonium nitrogen fertilizer.

#### For Additional Control of Kochia

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with fluroxypyr 1-methylheptyl ester for improved control of kochia. Use higher rates within the specified rate range when weed infestation is heavy. Refer to the specific fluroxypyr 1-methylheptyl ester label for application timing and restrictions.

#### Tank mixtures with insecticides

Tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with pyrethroid or carbamate insecticides including esfenvalerate or methomyl, insecticides.

To avoid crop injury or antagonism, apply the products indicated below at least seven days before or three days after applying **Nicosulfuron 50% + Rimsulfuron 25% WG**.

**DO NOT** tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with sodium bentazon and sodium Bentazon + atrazine or severe crop injury may occur.

**DO NOT** tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with 2,4-D -containing products as severe grass control antagonism may occur.

**DO NOT** tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with foliar-applied organophosphate insecticides including chlorpyrifos, malathion, parathion, etc., as severe crop injury may occur.

**DO NOT** tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with other acetolactate synthase (ALS) inhibiting herbicides unless the mixture is specifically directed on **Nicosulfuron 50% + Rimsulfuron 25% WG** labels or fact sheets, as severe crop injury may occur.

Other than the exceptions noted, and in addition to the tank mix partners and rates indicated above, **Nicosulfuron 50%** + **Rimsulfuron 25% WG** may be tank mixed or followed with sequential applications of other products registered for use in field corn. **Nicosulfuron 50%** + **Rimsulfuron 25% WG** may be applied in tank mix combinations with full or reduced rates of other products provided:

- The tank mix product is labeled for the same timing, method of application, adjuvants, and use restrictions as **Nicosulfuron 50% + Rimsulfuron 25% WG**.
- The tank mixture is not specifically prohibited on the label of the tank mix product.
- The tank mix combination is compatible as determined by a "jar test" described in the TANK MIX COMPATIBILITY TESTING section below.

# **Tank Mixing Precautions:**

- Weed control and crop response with tank mixtures not specifically designated in this label are the responsibility of the user and manufacturer of the tank mix product.
- Read and follow all applicable use directions, precautions, and limitations specified on the respective product labels and fact sheets.
- **DO NOT** exceed labeled application rates. **DO NOT** tank mix **Nicosulfuron 50% + Rimsulfuron 25% WG** with other products that contain the same active ingredients as **Nicosulfuron 50% + Rimsulfuron 25% WG** (nicosulfuron and rimsulfuron) unless the label of either tank mix partner specifies the maximum application rate.
- A corn plant's predisposition to develop fused tissue emerging from the whorl (rattail) after the V-11 stage may
  increase when a product containing dicamba (i.e., dicamba, atrazine + dicamba) is applied to small corn under early
  stressful conditions. Be aware of this when applying tank mixes with dicamba to small corn (V-3 stage or smaller)
  under stressful conditions. See ENVIRONMENTAL CONDITIONS for a description of these stressful conditions.

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TANK MIX COMPATIBILITY TESTING

Perform a jar test prior to tank mixing to ensure compatibility of **Nicosulfuron 50% + Rimsulfuron 25% WG** and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily film or layers, or other precipitates, it is not compatible and the tank mix combination must not be used.

# **SEQUENTIAL NICOSULFURON APPLICATIONS**

Apply nicosulfuron herbicide 14 or more days after **Nicosulfuron 50% + Rimsulfuron 25% WG** applications to control grasses that may emerge later in the year. Refer to the nicosulfuron label for grass species controlled, proper size of weeds, rates, corn sizes, and other information. When following a **Nicosulfuron 50% + Rimsulfuron 25% WG** application, **DO NOT** use more than 2/3 ounce nicosulfuron per acre.

A sequential application of nicosulfuron will effect crop rotation intervals to certain sensitive crops, including sugarbeets. For maximum crop rotation flexibility, consult the **CROP ROTATION** section before applying nicosulfuron to fields previously treated with **Nicosulfuron 50% + Rimsulfuron 25% WG**.

#### **CULTIVATION**

Timely cultivation is necessary to control suppressed weeds, or weeds that emerge after an application of **Nicosulfuron 50% + Rimsulfuron 25% WG** in the absence of an activating rainfall. Optimum timing for cultivation is 7 to 14 days after **Nicosulfuron 50% + Rimsulfuron 25% WG** application or upon seeing the establishment of new weeds.

#### **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

**Nicosulfuron 50% + Rimsulfuron 25% WG** provides best results when applied to young, actively growing weeds. Applications made during warm, moist conditions (70°F or more) and adequate soil moisture both before and after application maximizes performance.

The degree and duration of control depend on spray coverage, activating rainfall, weed spectrum, weed size, growing conditions before and after treatment, soil moisture, and adjuvant selection.

Adequate soil moisture is required for optimum activity. Rainfall within 5 to 7 days will enhance **Nicosulfuron 50% + Rimsulfuron 25% WG** residual activity. Timely cultivation is required for maximum weed control without an activating rain.

Nicosulfuron 50% + Rimsulfuron 25% WG is rainfast in 4 hours.

Treating weeds that exceed maximum label height or that are under stress may result in incomplete control. Poor weed control or crop injury may result from applications made to plants under stress from:

- abnormally hot or cold weather;
- environmental conditions including drought, water-saturated soils, hail damage, or frost;
- disease, insect, or nematode injury;
- prior herbicide, or carryover from a previous year's herbicide application.

Severe stress from conditions immediately following application may also result in crop injury or poor weed control. Stress affects all weeds, but especially weeds including woolly cupgrass, green and yellow foxtail, and wild proso millet. If the corn or grass weeds are under stress, delay application until stress passes and both weeds and corn resume active growth.

Apply **Nicosulfuron 50% + Rimsulfuron 25% WG** when minimum nighttime temperatures are above 40°F and the maximum daytime temperatures are below 92°F to maximize performance and minimize the potential for crop injury.

Applications made during or immediately following periods of large day/night temperature fluctuations or where daytime temperatures **DO NOT** exceed 50°F may decrease weed control and increase the potential for crop injury.

**Nicosulfuron 50% + Rimsulfuron 25% WG** rapidly inhibits the growth of susceptible weeds, reducing weed competition within as little as 6 hours after application. Susceptible plants are controlled in 7 to 21 days.

Ground application of **Nicosulfuron 50% + Rimsulfuron 25% WG** to dry, dusty fields may reduce weed control in wheel track areas.

SOIL INSECTICIDE INTERACTION INFORMATION

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Before using Nicosulfuron 50% + Rimsulfuron 25% WG, ensure that it is compatible with any other insecticides previously applied to the corn crop.

Nicosulfuron 50% + Rimsulfuron 25% WG may interact with certain insecticides previously applied to the crop. Crop response varies with field corn type, insecticide used, insecticide application method, and soil type.

Nicosulfuron 50% + Rimsulfuron 25% WG may be applied to corn previously treated with chlorethoxyfos, Cyfluthrin + phostebupirim, or tefluthrin insecticides or non-organophosphate (OP) soil insecticides regardless of soil type.

- DO NOT APPLY Nicosulfuron 50% + Rimsulfuron 25% WG to corn previously treated with terbufos in furrow or over the row at cultivation.
- Applications of **Nicosulfuron 50% + Rimsulfuron 25% WG** to corn previously treated with terbufos, chloryrifos, or phorate may cause unacceptable crop injury, especially on soils of less than 4% organic matter.

#### CROP ROTATION

Rotational crops vary in their response to low concentrations of Nicosulfuron 50% + Rimsulfuron 25% WG remaining in the soil. **Nicosulfuron 50% + Rimsulfuron 25% WG** dissipates rapidly in warm, acidic, microbiologically active soils. The amount of **Nicosulfuron 50% + Rimsulfuron 25% WG** which may be present in the soil depends on soil pH and organic matter content, elapsed time since application, crop production practices, and environmental factors. Injury to rotational crops may occur in high-pH, cold soils if dry weather prevails between application and rotational crop planting.

For fields treated with sequential applications of Nicosulfuron 50% + Rimsulfuron 25% WG and nicosulfuron herbicide, consult the crop rotation intervals listed on the nicosulfuron and Nicosulfuron 50% + Rimsulfuron 25% **WG** labels. Use the most restrictive re-crop interval from either label.

The following rotational intervals must be observed when using **Nicosulfuron 50% + Rimsulfuron 25% WG**:

Crop	Rotational Interval in Months
Corn (field)	Anytime
Corn (pop, sweet, seed)*	10
Soybeans	0.5 (15 days)
Cereals, spring (barley, oats, rye, wheat)	8
Cereals, winter (barley, oats, rye, wheat)	4
Canola**	10
Cotton	10
Ory Beans, Snap Beans	10
lfalfa**†	10
lax**	10
ted Clover**	10
eas	10
otato**	10
unflower**	10
Other Crops	See Rotational Crop Guideline 2

Nicosulfuron 50% + Rimsulfuron 25% WG ROTATIONAL CROP GUIDELINE - 2 Crops With soil pH restrictions

	Rotational Interval in Months			
Crop	Soil pH - < 6.5	6.5 - 7.5	> 7.5	
Sorghum	10	10	18*	
Sugarbeets***	10	18**	18	
All other crops	10	18	18	

<sup>\*</sup>Except in Texas and Oklahoma east of Highway 281, where the rotational interval is 10 months, regardless of pH.

<sup>\*</sup>Except the sweet corn varieties "Merit", "Carnival", and "Sweet Success", for which the minimum time interval is 15 months.

\*\*Rotational intervals must be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless sprinkler irrigation has been applied and totals greater than 15" during the growing season.

†On sprinkler irrigated fields in Idaho, Utah, and Northern Nevada it is best to use deep fall tillage including plowing prior to planting alfalfa. Product degradation may be less on furrow irrigated soils and may result in some crop injury.

<sup>\*\*</sup>Except on irrigated sites in Colorado, Wyoming, Nebraska, Texas, or in Minnesota east and south of the Red River Valley, Michigan, and Ohio, where precipitation and/or irrigation following application must exceed 25" prior to planting beets, where the interval is 10 months on soils with pH < 7.5. In the States of Colorado, Wyoming, and Nebraska, temporary crop response, stunting and/or crop injury may occur if soil pH is > 7.5, or precipitation and/or irrigation following application is less than 25" prior to planting sugarbeets.

<sup>\*\*\*</sup>In North Dakota and northwest Minnesota, the cumulative precipitation and/or irrigation following in the 18 months following application must exceed 28" in order to rotate to sugarbeets.

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Many crops are highly sensitive to **Nicosulfuron 50% + Rimsulfuron 25% WG**. All direct or indirect contact (including spray drift) with crops other than field corn needs to be avoided (see also SPRAY DRIFT MANAGEMENT).

For all application systems, use 50-mesh or larger strainer screens.

**DO NOT** apply **Nicosulfuron 50% + Rimsulfuron 25% WG** through any type of irrigation system.

#### **GROUND APPLICATION**

# **Broadcast Application**

Use a minimum of 15 gallons of water per acre (GPA) to ensure thorough coverage of the weeds and the best performance. Use a minimum of 10 GPA for light, scattered stands of weeds.

Ensure that equipment is set up to avoid applying an excessive rate directly over the rows and into the corn plant whorl. Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

#### **Band Application**

For band applications, use proportionately less spray mixture. To avoid crop injury, carefully calibrate the band applicator to not exceed the labeled rate. Carefully follow the manufacturer's instructions for nozzle type (flat fans), orientation, distance of nozzles from the crop and weeds, spray volumes, calibration and spray pressure.

#### AERIAL APPLICATION

Aerial application is prohibited in New York State or California.

Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage at a minimum of 5 GPA.

### SPRAYER PREPARATION/CLEANUP

It is important that spray equipment is clean and free of previous pesticide deposits before using **Nicosulfuron 50%** + Rimsulfuron 25% WG and then properly cleaned out following application. Clean all application equipment before applying Nicosulfuron 50% + Rimsulfuron 25% WG. Follow the cleanup procedures specified on the label of the product previously sprayed. If no cleanup procedure is provided, use the procedure that follows. Immediately following applications of Nicosulfuron 50% + Rimsulfuron 25% WG, thoroughly clean all mixing and spray equipment to avoid subsequent crop injury.

#### NOTE:

- When cleaning spray equipment before applying Nicosulfuron 50% + Rimsulfuron 25% WG, read and follow label directions for proper rinsate disposal of the product previously sprayed.
- Steam cleaning of aerial spray tanks will help to dislodge any visible pesticide deposits.

  When spraying or mixing equipment will be used over an extended period to apply multiple loads of **Nicosulfuron 50% + Rimsulfuron 25% WG**, partially fill the tank with fresh water at the end of each day of spraying, flush the boom and hoses, and allow to sit overnight.
- Thoroughly clean application equipment immediately after use. (See the Sprayer Cleanup section of this label for instructions.)

#### **Cleanup Procedure**

- 1. Drain the tank and thoroughly hose down the interior surfaces. Flush the tank, hoses, and boom with clean water for a minimum of 5 min.
- 2. Partially fill the tank with clean water and add one gallon of household ammonia\* (containing 3% active) for every 100 gallons of water. Finish filling the tank with water, then flush the cleaning solution through the hoses, boom, and nozzles. Add more water to completely fill the tank and allow to agitate/recirculate for at least 15 min. Again, flush the hoses, boom, and nozzles with the cleaning solution, then drain the tank.
- 3. Repeat Step 2.
- Remove the nozzles and screens and clean separately in a bucket containing the cleaning agent and water.
- Thoroughly rinse the tank with clean water for a minimum of 5 min, flushing the water through the hoses and
- \*Equivalent amounts of an alternate strength ammonia solution may be used.

# STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Storage:** Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

**Pesticide Disposal:** Waste resulting from the use of this product must be disposed of on site or at an approved waste

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disposal facility.

Container Handling: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

**Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners:** Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

**Refillable Fiber Drums With Liners:** Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with **Nicosulfuron 50% + Rimsulfuron 25% WG** herbicide containing nicosulfuron and rimsulfuron only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

**All Other Refillable Containers:** Refillable container. Refilling Container: Refill this container with **Nicosulfuron 50% + Rimsulfuron 25%** containing nicosulfuron and rimsulfuron only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage including cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact Rotam at the number below for instructions. Check for leaks after refilling and before transporting. If

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leaks are found, do not reuse or transport container, contact Rotam at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Outer Foil Pouches of Water Soluble Packets (WSP):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of this product, which are beyond the control of NORTH AMERICA, INC. or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ROTAM AGROCHEMICAL COMPANY LIMITED and Seller harmless for any claims relating to such factors.

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